St. Bartholomew's Hospital Journal.

VOL. XII.—No. 10.] JULY, 1905. [PRICE SIXPENCE.

St. Bartholomew's Hospital Journal,

JULY 1st, 1905.

"Æquam memento rebus in arduis
Servare mentem."—*Horace*, Book ii, Ode iii.

Editorial Notes.

WE apologise for the late appearance of this number of the JOURNAL, but our small staff excuses itself on the grounds that it has been difficult to cope with the great increase of work in connection with the Students' Union Year-Book, which is at the present time in the press and well on its way to completion.

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IT has been finally decided to send out a copy of the Year-Book to every Bartholomew's man gratis, but in order that the cost of postage may be covered every one who receives a copy will be invited to become a subscriber to future editions (of which three are guaranteed in the publisher's contract) by paying the nominal sum of one shilling. But if the book receives a reasonable amount of support so as to ensure a large circulation, there is little doubt that the Students' Union will be in a position to distribute the book annually to those who wish for it *without any further charge*.

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THE Athletic Club gave its Annual Sports on Wednesday, June 14th. The venture of holding them at Winchmore Hill, which was instituted last year, again proved a success, and great credit is due to the Committee for the precision with which all the arrangements were carried out, and although the attendance might well have been larger, yet everyone who was present seemed to enjoy the day thoroughly.

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THE postponement of the Past and Present function from June 7th to June 22nd was fortunate in many ways, but chiefly on account of the weather. Winchmore Hill was looking its best, and bade welcome to a goodly crowd of visitors. The Present Cricket XI had the better of the day's play, which, however, ended in a draw. The Tennis matches were unfortunately spoiled by the fact that our VI was drawn to meet the London in the first round of the Inter-Hospital competition, and so both the Past and Present teams were quite unrepresentative.

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THE dinners of the 6th and 8th Decennial Clubs were held on Wednesday, June 28th, a detailed account of which will appear in the August number of the JOURNAL. The 7th Club is holding its Annual Dinner at the Trocadero, on Wednesday, July 5th.

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THE present is the year in which the 9th Decennial Club should have come into being, but no one has taken the initiative. The one thing needful is to discover two energetic secretaries—for preference men who are likely to remain at the Hospital—who will send a circular letter to all the men who have entered at St. Bartholomew's since 1895, and have qualified between that year and the present time. Then it only remains to make the necessary arrangements for a dinner. We offer a suggestion that in future years the dinner of the 9th Club be held on the same day as the Past and Present function. The double event would be likely to attract a large number of men up from the country.

* * *

THE Annual Distribution of Prizes will take place in the Great Hall, on Wednesday, July 12th. Invitations have been sent to all the Bartholomew's men in the London district, and to those in the country who have applied for tickets. Lord Ludlow has kindly consented to give away the prizes, and his presence should ensure a large audience, for although we have on several occasions called attention in these columns to the energy and enthusiasm of our new

Treasurer, yet we should feel much better pleased if all the friends and supporters of the Hospital (instead of taking our word for it) were to come and hear for themselves what he has to say about the immediate prospects of the Hospital and the present policy of the Governors. At all events every student should make it a duty to be present.

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WE congratulate Mr. R. B. Etherington Smith upon his election as Resident Anæsthetist to the Hospital.

* * *

MR. D'ARCY POWER has been appointed Examiner in Surgery for the second examination for the degree of Bachelor of Medicine in the University of Oxford.

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AN examination of candidates for not less than forty commissions in the Royal Army Medical Corps will be held on the 27th July next and following days. Applications to compete should be made to the Secretary, War Office, 68, Victoria Street, London, S.W., not later than the 17th July, on which date the list will be closed.

* * *

WE would call the attention of those men who have recently qualified, and who have no definite plans for the future, to an article upon the Royal Army Medical Corps in another column. It is the third article of a series, which we have been very glad to publish; for our correspondent has set forth very clearly the advantages and disadvantages of joining the corps.

* * *

THE following is the list of prize winners for the present session:

Lawrence Scholarship and Medal.—E. H. SHAW.
Brackenbury Surgical Scholarship.—H. W. WILSON.
Brackenbury Medical Scholarship.—C. W. HUTT.
Matthews Duncan { Medal.—G. C. E. SIMPSON. Prize { E. H. SHAW, P. L. GUISEPPI, } Æq.
Walsham Prize.—E. H. SHAW.
Willett Medal.—H. W. WILSON.
Sir George Burrows Prize.—J. G. GIBB.
Skynner Prize.—J. G. GIBB.

* * *

THE Annual Summer Concert, given by the Junior Staff and the Musical Society, took place on June 30th, and was voted a great success by all present. An account will appear in the August number of the JOURNAL.

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DR. C. H. ROBERTS and Dr. H. Williamson have been appointed Examiners to the Central Midwives' Board, and Dr. J. A. Willett Registrar to the Samaritan Free Hospital.

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WE congratulate Dr. W. P. S. Branson upon his election as Assistant Curator of the Museum.

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DR. E. M. NIALL and Messrs. R. C. Elmslie and A. H. Hogarth have been selected Assistant Medical Officers to the Board of Education of the London County Council.

THE subscriptions to the Appeal Fund continue to come in very satisfactorily, and we gratefully acknowledge munificent donations from the following: The Trustees of the Smith's Kensington Estate Charity £1000, "Anonymous" £1000, T. F. K. £262 10*s*., Mrs. Durlacher (in memory of the late Sir Reginald Hanson, Bart.) £200, John Barrow, Esq., £105, M. Meredith-Brown, Esq., £105, "Anonymous" £100, H. T. R. £100, John Swire and Sons £100.

* * *

THE amount subscribed by Bartholomew's men to the General Fund has increased from £7498 5*s*. 7*d*. to £8047 5*s*. 5*d*., but we are unfortunately compelled to hold over the names of the additional subscribers for the present.

* * *

THE Vicar and Churchwardens of St. Bartholomew-the-Less have handed over, on behalf of the new Nurses' Home, £106 16*s*. 4*d*. to the Hon. Secretary of the Appeal Fund as the result of a special appeal by Rev. Wm. Ostle, and a collection in the church on Hospital Sunday.

* * *

Pathological Block.

IT is gratifying to note that the special fund for the Pathological Block has been considerably augmented since the last issue of the JOURNAL, thanks chiefly to the substantial donations of Lady Burrows, Mr. Alfred Willett, and other members of his family. However, £8500 are still required before the Governors can begin to build the block, as we pointed out last month when we published a full-page illustration of the proposed building in elevation from Smithfield; and this month we are glad to have the opportunity of reproducing plans of three of the floors, together with a short account, by Dr. Andrewes, of the accommodation thus provided. Therefore we appeal again to everyone either to subscribe or to collect for the JOURNAL Pathological Fund. Now is the right time to begin. *This block must be completed before the commencement of the winter session, October*, 1906. Collecting cards may be obtained on application to the Editor.

	£	*s*.	*d*.
Amount already acknowledged	1064	8	0
A. L. Vaughan, Esq.	1	1	0
Mrs. Margaret Steen (per Dr. Griffith)	10	10	0
Capt. C. G. Rawling	1	0	0
*Sheffield Neave, Esq.	5	5	0
H. G. Brown, Esq. (per Dr. Branson)	5	5	0
Henry Winter, Esq. (per W. McAdam Eccles, Esq.)	5	5	0
Tufnell Burchill, Esq. (per H. J. Waring, Esq.)	50	0	0
A. W. Rickards, Esq. (per L. T. Burra, Esq.)	5	0	0
Lady Burrows (in memory of Sir Frederic Abernethy Burrows, Bart.)	100	0	0
*Alfred Willett, Esq.	50	0	0
Mrs. Alfred Willett	50	0	0
Mrs. Herbert Bull	50	0	0
Herbert Burrows Willett, Esq.	50	0	0
John Abernethy Willett, Esq., M.B.	50	0	0
A. Stuart Willett, Esq.	50	0	0
Total	£1547	14	0

* Has also subscribed to the General Fund.

The Preliminary Medical Sciences in London.

A FALSE impression seems to have gone abroad to the effect that the Medical School Committee of our Hospital has decided to adopt a scheme for the concentration of the teaching of preliminary sciences at central schools, and that these subjects will no longer be taught at St. Bartholomew's. It is for the purpose of discrediting this impression that we have taken up the pen.

The history of the "concentration scheme," as it may be called, dates back to the year 1900, when the University of London was reconstituted under certain Parliamentary Statutes, amongst which we find the following clause:

> "And in particular the Senate shall use its best endeavours whenever practicable to secure such common courses of instruction for Internal Medical Students in the preliminary and intermediate portion of their studies under appointed or recognised teachers at one or more centres" (Statute 80).

The report of the Statutory Commission, with the official statutes and regulations, was duly criticised at the time in an article which appeared in the JOURNAL of March, 1900.

Various attempts have been made to carry out a scheme of concentration. Thus in March, 1901, the Faculty of Medicine of London University appointed a committee to report upon the matter, and we read a recommendation to the effect—

> "That the Senate should take steps to secure funds to enable it to establish in the near neighbourhood of the University a School of Preliminary and Intermediate Medical Studies."

As a result plans were drawn up forthwith for the concentration at South Kensington, and an appeal for funds was made, which met with little response at the time, so that the scheme has, so to speak, been put upon the shelf until some man of wealth can be persuaded to immortalise himself by equipping and endowing such a school, which shall be known as the *Institute of Medical Sciences* of the University of London.

More recently other schemes have been brought forward with the idea of establishing, for the benefit of all the London Hospitals, several central schools, *e.g.* at University and King's Colleges, where conveniences already exist for the teaching of large numbers of students; and for some time our School Committee was thought to look with favour upon such a scheme of concentration at University College. There can be no reasonable doubt that some such scheme, if properly planned and considered, would be ideal from an economic and a national point of view, and therefore our Committee was more than justified in giving the scheme such careful thought and consideration; but the time is not yet ripe for its adoption, in spite of the fact that the Westminster Hospital Medical School has decided to send its students in future to King's College for their elementary studies. We make no attempt to prophesy, but we are convinced that it would be the first step towards the desolation and ruin of St. Bartholomew's if we were to follow the lead. Therefore we are heartily glad to report that *our authorities have definitely and finally decided to take no part in such a scheme at the present.*

The Committee, doubtless, had its own reasons for rejecting the scheme, but we will consider the matter in brief solely from the student's point of view. A student entering upon his medical curriculum has *ipso facto* set apart five years of his life before he can become a qualified practitioner of medicine, and therefore he is entitled to spend it in the most profitable and enjoyable way provided that it accords with a reasonable amount of hard work. Consequently, when he has entered one of the London Schools of Medicine, it is certain that he has no wish to change his surroundings from time to time. The present system, therefore, has the following advantages: (1) The necessary continuity of work is ensured, and at the same time the student is brought into closer and more personal contact with his tutors, the mutual advantages of which are sufficiently obvious. (2) The athletic side of the student's life can be developed to its full extent under the present system, but from the time that any concentration scheme takes effect, all Inter-Hospital competitions will gradually lose their interest and the friendly rivalry between the London Hospitals, which has done so much to keep alive the amateur spirit in the athletic world of the metropolis, will cease to exist. (3) Again, the social life at a London Hospital is often very attractive, and during this time a man makes most of his lasting friendships, and there is no doubt that the abolition of the present system would tend to diminish greatly these social attractions which are not the least important factors in the education of the young medical student.

In conclusion, everybody knows the Duke of Wellington's hackneyed saying with reference to the battle of Waterloo, but not everybody knows that he was referring to the public-school spirit—call it patriotism or *esprit de corps*, or what you will; still, it is one of the greatest characteristics of the English-speaking people. It is not found elsewhere; it is a spirit which is born and bred at the schools, which is fostered at the Universities and at the great London Hospitals, and, among these, not least at St. Bartholomew's.

At the present time St. Bartholomew's is a complete unit, a little world in herself. She is an *alma mater*, with her traditions and customs, with her great name and reputation. She has cherished and fostered thousands of students who have gone forth into the great wide world, and have proved themselves worthy *alumni*. But all this would be sacrificed if the present unity were to be disestablished by sending away our first and second year students to central schools, where they might, indeed, become members of an institute of medical science, but they would not be Bartholomew's men. Is not this alone a sufficient reason that the old order should remain, and that St. Bartholomew's should still be a complete school of medicine,—

> "self-schooled, self-scanned, self-honoured, self-secure"?

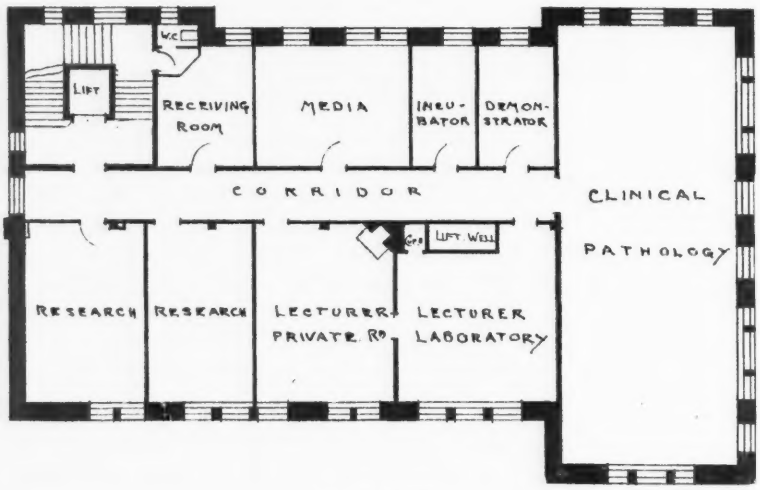
A Short Account of the Proposed New Pathological Block.

By F. W. ANDREWES, M.D., F.R.C.P.

MORE than a year ago I was responsible for an article* in this JOURNAL on "The Work and Needs of the Pathological Department." I gave a short account of the work carried on by the department, and I ventured to sketch my own private opinions as to the laboratory accommodation needed for its efficient performance. The Medical and Surgical Staff had not, at that time, had the matter under detailed discussion, but during the past year the whole subject has been very thoroughly considered by the Medical Council, complete plans for a new Pathological Block have been drawn up, and these plans have been approved by the House Committee and Governors. Nothing is now wanting but the money to carry out the actual building.

I do not propose here to recapitulate the facts and arguments as to the urgency of our requirements. All that I said in my former article more than holds good to-day, and in the interests of the Hospital and School alike it is earnestly to be hoped that the matter may be taken in hand at the earliest possible moment. But it will certainly be of interest to all readers of this JOURNAL to be furnished with a short account of the pathological accommodation which it is proposed to provide, and with the plans of those floors on which the principal laboratories are situated. Moreover it may be hoped that the generosity of old Bart.'s men will be stimulated by the evidence that there is nothing tinkering or makeshift about the plans. They more than realise all that I suggested in my former article, and form a really worthy attempt to place our Hospital in its proper position as regards pathology.

As will have been seen from the article in the June number of the JOURNAL, the block is to be placed facing Smithfield, between the present School buildings and King Henry the Eighth's Gate, a gap of fifteen feet separating it from the former. The ground floor is devoted to various administrative offices connected with the School, and need not detain us here. With this exception the entire building is to be consecrated to the study of disease, and ample accommodation is provided for the various branches of that study. In the first place comes the Hospital work proper—



FIRST FLOOR.

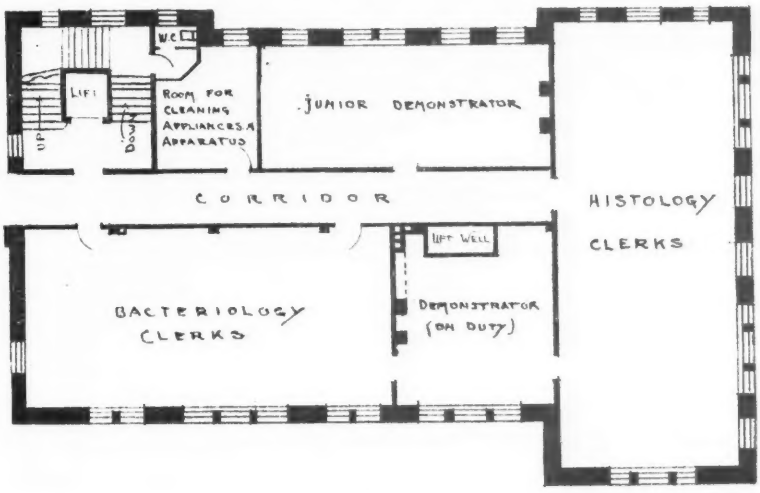
the investigation of material from the wards, theatres, and deadhouse,—which forms the essential *raison d'être* of the building. Inseparable from this is teaching accommodation for the students who do much of the work, while last, but not least, comes the original research by which new facts are brought to light, and new lines of treatment suggested. The provision for these three ends will best be appreciated by shortly considering each floor of the block in order.

In the basement is the mortuary, with a refrigerating plant which will effectually obviate the objectionable features which now characterise our post-mortem room in hot weather. Here, too, is a mortuary chapel and anteroom, access to which can be attained by the friends of patients, without passing through the Hospital, by a gate in the interval between the present school buildings and the pathological block. In the basement is also situated the heating apparatus for the whole building. Two lifts are provided, one for general use, and another smaller one for

* *St. Bart.'s Hosp. Journ.*, April, 1904.

conveying the bodies from the refrigerated mortuary up to the post-mortem room on the top floor.

In the plan of the first floor it will be seen that one end of the building is occupied by a very large laboratory (fifty feet by twenty), to be devoted to clinical pathology. Here will be done the bulk of the ward work not actually carried out in the wards themselves; it will be the room to which clinical clerks will bring material for investigation, and where they may do blood-counts undisturbed. It will further be available for the instruction of students in the methods of clinical pathology, and will be large enough for extensive classes. Opening out on either side from the corridor are seen a number of smaller rooms. Next to the staircase is a receiving room, to which will be brought all material from the operating theatres, post-mortem room, and wards, to be taken over by the particular department responsible for its investigation. A room of fair size is provided for the making and sterilising of media for bacteriological cultures, and for washing-up apparatus. A special incubator-room, which can be kept at a constant temperature, is also designed. The lecturer's private room and laboratory are on this floor, together with a demonstrator's room and two research laboratories.



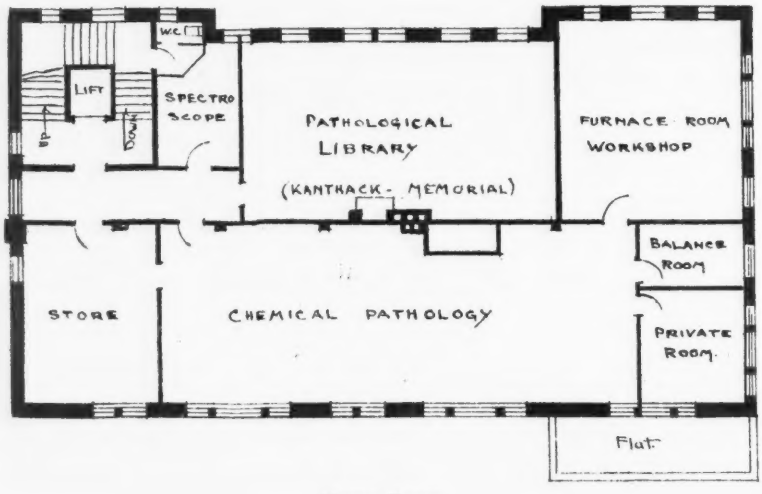
SECOND FLOOR.

On the second floor is a large laboratory, of equal size to that for clinical pathology, where all the section cutting will be done. It is intended that each physician, as well as each surgeon, and also the gynæcological and ophthalmic departments, shall have a separate histological clerk. In this way it will be possible to have a complete examination of all cases, medical and surgical alike, from the post-mortem room, as well as of all material from the operating theatres. Another large laboratory on this floor will be devoted to bacteriology. This room is only five feet shorter than the histological laboratory, and this is a wise provision, for, apart from the necessity of teaching space for this subject, it is certain that the routine bacteriological examination of post-mortem cases will become more and more practised, while blood-cultures, lumbar punctures, and other cultivations from living patients are yearly increasing in number. Two good-sized rooms for demonstrators are also situated on this floor, as well as a room for washing-up apparatus. It is designed to connect this floor with the present school buildings by an iron bridge, which will communicate with the present Physiological Department.

The third floor is mainly devoted to chemical pathology, and will be under the direct control of the lecturer on this subject. The principal laboratory is the largest in the building measuring some fifty-seven feet in length by twenty in width. Various accessory rooms are seen in the plan, together with a private room for the lecturer, rendering the total accommodation very complete. The only other room that requires mention on the third floor is the pathological library. It is an absolute necessity for pathological work, and especially for original research, that one should have a good reference library on the spot, containing complete series of the principal pathological journals of this and other countries. The nucleus of such a library already exists in the books presented to the department, after Prof. Kanthack's death, by his widow. The periodicals have been kept up to date, and already form a useful reference library, to which various other presentations have since been made. Since the remarriage of Prof. Kanthack's widow the funds which were subscribed by old Bart.'s men have become available for use as a permanent memorial,

and it is felt that this could take no more fitting form than a pathological library to be called the "Kanthack Memorial Library." The sum in hand will furnish some £30 a year, which will be quite adequate for the purpose. The scheme has the cordial consent of Prof. Kanthack's widow.

Mention must finally be made of the top floor of the block, not shown in the plans here published. The principal space is occupied by the post-mortem room—measuring sixty-five by twenty-two feet—a convenient and well-lighted room, which contrasts very favourably with the eccentric apartment in which autopsies are at present conducted. The bodies, as has been already mentioned, are to be conveyed to this room by a special lift, quite apart from the passenger lift. Adjoining the post-mortem room are two rooms about twenty-two feet square. One is for the storage



THIRD FLOOR.

of pathological specimens for demonstration, and the other is a demonstrator's room, or rather laboratory, where immediate microscopic examinations can be made, frozen sections cut, and cultivations taken. The lack of such a laboratory has long been keenly felt in connection with the present post-mortem room. Another room on this floor is to be specially fitted up for the accommodation of animals used in the necessary inoculation experiments, and will be well lighted, warmed, and ventilated.

A consideration of the foregoing details and plans will show that they are of a kind which, in the present state of pathological knowledge, may be pronounced reasonably complete, not only for the present, but also for the prospective needs of the Hospital. Moreover, the plans possess a certain element of elasticity, which is much to be commended. The building is so designed that the details of the rooms on the various floors can be modified, in accordance with current requirements, at very small expense. I may add, in conclusion, that we owe a considerable debt to Mr. Bruce Clarke for the original draft of the plans, though their final shape has been elaborated only after prolonged consideration by many members of the Staff in collaboration with the architects.

Clinical Odds and Ends.

By Dr. SAMUEL WEST.

ALBUMINURIC RETINITIS.

THERE are two forms of albuminuric retinitis, the *exsudative* and *degenerative*.

The **exsudative** form is similar to that seen in inflammatory conditions, and might easily be attributed to cerebral tumour, as I have experienced. This form is met with in tubular nephritis as well as in granular kidney. In tubular nephritis it may resolve completely without leaving behind any defect of vision. In granular kidney the prognosis is very grave, not as regards sight only but also life, for the patient has not long to live.

The **degenerative** form shows itself in bright glistening white patches, irregularly scattered about the central portions of the retina, but especially grouped round the yellow spot. It is these white spots which give the albuminuric retinitis of granular kidney its characteristic appearance.

Both forms may be of toxic origin, and like other toxic affections are usually bilateral and more or less symmetrical.

The degenerative form met with in granular kidney may also be the result of the disease of the vessels, which may lead to patches of defective nutrition just as it may lead to hæmorrhage. The lesions might then be uni-

Radiograph from a Case of Bilateral Cervical Rib (see p. 155).

Adlard & Son, Imp.

lateral and unsymmetrical. But even this degenerative form is rarely met with in one eye only. It is almost invariably bilateral though not necessarily symmetrical. I have only seen one or two cases in which these changes occurred on one side only. In one instance though they were extreme in the right eye, none at all could be discovered in the left; and in another instance they were so minute that they would have been overlooked without the most careful examination.

The diagnostic value of the degenerative form is very great, for it does not occur except in granular kidney, and its discovery has more than once determined what would otherwise have remained a doubtful diagnosis.

I do not know that the prognostic value of this form is quite so great as has been assumed. Two years is often stated to be the average duration of life after its recognition. It is, however, often not looked for till the sight has begun to suffer. I have certainly seen cases of much longer duration than this, even so long as five and seven years; yet I think the general statement approximately true, especially if the eye lesions be taken in connection with the general condition of the patient.

Concerning the Decubitus of Pleurisy and the Use of Strapping the Side.

Patients with pleurisy lie in that position in bed which gives them least distress or in which they are most comfortable.

With a large effusion they lie on the affected side because that position gives the opposite lung free play. If they lay on the sound side not only would the movements of that lung be restricted, but gravity would throw the whole weight of the fluid on to the sound side and compress the lung. The result would be increased dyspnœa.

In early pleurisy pain is the determining factor. Sometimes pressure on the affected side increases pain, then patients will not lie on that side, but probably turn over on to the opposite side; more often they take the intermediate position and lie upon the back, thus allowing the sound lung to move as freely as it can. On the other hand, by lying on the affected side the respiratory movements of that side will be checked, and the pain may thereby be diminished more than it is increased by the pressure. This is the rationale of strapping the side in acute pleurisy just as it is in fractured ribs, the object being to keep the affected side as much as possible at rest while not interfering with the movements of the sound side. The strapping should be applied to the affected side only, and carefully fixed as firmly as possible. A bandage put tightly round the body would check the movements on both sides, and therefore does not fulfil the conditions required.

To strap a pleuritic effusion is a mistake. Firm pressure with strapping does good in a case of effusion into the knee-joint or tunica vaginalis, but not in a pleuritic effusion, for the condition and results are quite different. In a pleuritic effusion the pressure, if it had any effect at all, would lead to further compression of the lung and displacement of organs; but it would not affect the effusion of fluid; consequently it would do harm and not good.

The Uses of X Rays in Medical Work.

Notes from a Lecture delivered on May 22nd, 1905,

By H. LEWIS JONES, M.D.Cantab., F.R.C.P.,
Physician to the Electrical Department.

SINCE the X Rays were discovered in 1898 the amount of work which has been done in connection with them is enormous. A recently-issued French work on the subject contains 1100 pages. It is not easy therefore to give more than a general introduction to the subject in the short space of one lecture.

It is important for every medical man to know enough about the X Rays to be able at least to understand the principles involved in their production; to interpret X Ray photographs,—and to know the conditions for which they may be used as a therapeutic agent. Students who aspire to resident posts in provincial hospitals would find it to their advantage to learn how to use an X Ray apparatus.

The essential apparatus for X Rays consists of a vacuum tube of special type supplied with a high-pressure electrical current, the electro-motive force required being in the neighbourhood of 60,000 volts. As to the service of the current the steadier the flow that it gives the better. In general, however, the instruments in use supply an intermittent and alternating current, which, to a certain extent, is a disadvantage. A Wimshurst machine gives an unidirectional current, but, like all statical machines it is cumbersome, and induction coils are therefore chiefly used; but in country places or for occasional use Wimshurst's machine is useful, as the turning of a handle is all that is needed for providing the proper current for an X Ray tube. Where electric light mains exist, the induction coil is the better instrument.

The X Ray tube is a form of Crookes tube exhausted to about one millionth of the atmospheric pressure.

When the current is applied a green phosphorescence occupies one hemisphere of the X Ray tube, and a stream of electrified particles (electrons) is set in movement from the kathode to the anode or antikathode with a velocity about one-tenth of the speed of light. This stream of electrons, the kathode stream, is arrested suddenly, by striking against the anti-kathode, and the ether waves known as X Rays are generated by the impact and radiate outwards, giving rise to the hemispherical phosphorescence where they strike the wall of the bulb.

The X Rays produced by different tubes have different penetrating powers. A low-penetration tube is best for the examination of such objects as the bones of the hand or arm; a higher tube is better for photographs of the trunk.

A valve-tube is often put in the circuit to sharpen and improve the photograph, and it acts by intercepting those current waves of the induction coil which tend to pass through the tube in the wrong direction.

There are two ways of using the X Ray for diagnosis. The first is by means of visible images projected by the rays upon a Barium Platinocyanide screen, the second is by means of photographs. As regards the photographic method, the sensitized plate is protected from light by being placed within a yellow envelope, which in turn is enclosed in a black envelope, and the part to be photographed is placed between the rays and the photo. After exposure to the rays the latter is developed in the usual way.

Two photographs may be taken from slightly different points of view, and looked at through a stereoscope. In this way beautiful results are often obtained.

For the purpose of locating foreign bodies with great precision, two photographs of the same object from different positions may be taken on the same plate; and by measuring the distances between the two positions of the bulb, and the two images of the foreign body, and the distances of the tube from the plate, the exact depth of that object from the surface can be calculated by plotting out these measurements in the form of triangles. Mr. Mackenzie Davidson has designed a localising apparatus which simplifies this procedure.

The X Rays may be used not only for showing bones and foreign bodies, but also to detect changes in the lungs and heart, and the presence of renal calculi. As disease of the lung is usually associated with consolidation, this is shown on the photographs as a difference in depth of shadow. As a result of the examination of the chest by X Rays it has been found that aneurysm is a commoner disease than was formerly believed.

By the comparison of X Ray photographs of diseased organs taken at different dates a far more valuable and exact record is obtained of the changes that are taking place therein than can be obtained by written descriptions or the unaided memory; and this method will probably be much used in the future, particularly in diseases of the chest where the sounds heard by auscultation have hitherto been mainly relied on.

Treatment.—The use of the X Rays therapeutically arose from observations upon the so-called "X Ray burns" or "X Ray dermatitis," which occur after prolonged exposures. It was found that exposures of from half an hour to an hour generally resulted in severe dermatitis.

Rodent ulcers and other forms of superficial cancer, lupus, and many forms of skin disease have been treated by X Rays.

Rodent ulcer is often completely curable, and the existence of extensive ulceration does not make the cases any less favourable, provided the affected area is on the surface and can be exposed to the influence of the rays—so, too, the local ulcerations of cancer may be cleared up and made to heal, though unfortunately, the progress of secondary infection of the deeper parts does not seem to be favourably affected. Lupus and other tuberculous ulcerations are frequently cured by X Rays. Generally speaking, lupus is most suited for treatment by X Rays when there is much ulceration, while the Finsen or light rays are more effectual for the destruction of deep-seated nodules.

Acne, eczema, and psoriasis form excellent subjects for treatment by X Rays.

It is not yet settled whether the X Rays themselves destroy the morbid growth, or whether they stimulate the healthy tissues around, and so lead to its absorption. It seems probable that the latter is the more correct explanation. The X Rays have no bactericidal power to speak of.

"*X Ray burns.*"—These are unhealthy, sloughy, painful ulcers, very intractable to treatment, and frequently only aggravated by lotions and ointments. They are best treated by being protected and left alone.

A year or two after these ulcers have healed up, the scars may become nævoid in character; this is probably due to special damage to the vaso-motor nerve-fibres.

Those who are much engaged in X Ray work are extremely liable to a form of chronic dermatitis of the hands. The nails become brittle, lined, and hard, and the skin of the knuckles and backs of the hands becomes thickened, sore, and cracked.

It has been reported that the testicular secretion is also injuriously affected in persons regularly exposed to the action of X Rays, and there is disappearance of active spermatozoa from the seminal fluid. Leaden aprons have been recommended to be worn as a prophylactic, and this is done in some of the larger X Ray clinics on the Continent.

Infantile Scurvy.

By CHARLES FISHER, M.D., B.S.Durham, D.P.H.Camb.

MY plea for writing this short paper on scurvy is that of late years, owing to our increased knowledge of diseases and improved methods of dealing with them, much has been done to reduce the prevalence of this disease; with a result that possibly many, like myself, have passed through the five years' curriculum without having seen such a case. Consequently when in private practice if one be called in to see an infant suffering from scurvy the chances are that a correct diagnosis may not be made, and in spite of vigorous treatment with drugs